

**Hearing of the Subcommittee on Emergency Preparedness, Response and Recovery,
Committee on Homeland Security, U.S. House of Representatives**

“Defending the Homeland from Bioterrorism: Are We Prepared?”

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Statement for the Record

**Asha M. George, DrPH
Executive Director, Bipartisan Commission on Biodefense**

Chairman Payne, Ranking Member King, and Members of the Subcommittee: Thank you for your invitation to provide the perspective of the Bipartisan Commission on Biodefense. On behalf of our Commission – and as a former Subcommittee Staff Director and senior professional staff for this Committee – I am glad to have the opportunity today to discuss our findings and recommendations with respect to biological terrorism and national defense against biological threats.

Our Commission assembled in 2014 to examine the biological threat to the United States and to develop recommendations to address gaps in national biodefense. Former Senator Joe Lieberman and former Secretary of Homeland Security and Governor Tom Ridge co-chair the Commission, and are joined by former Senate Majority Leader Tom Daschle, former Representative Jim Greenwood, former Homeland Security Advisor Ken Wainstein, and former Homeland Security and Counter Terrorism Advisor Lisa Monaco. Our commissioners possess many years of experience with national and homeland security.

In October 2015, the Commission released its first report, *A National Blueprint for Biodefense: Major Reform Needed to Optimize Efforts*. Shortly thereafter, we presented our findings and recommendations to this Committee. We made 33 recommendations with 87 associated short-, medium-, and long-term programmatic, legislative, and policy action items. If implemented, these would improve federal efforts across the spectrum of biodefense activities – prevention, deterrence, preparedness, detection and surveillance, response, attribution, recovery, and mitigation.

Since the release of the *Blueprint for Biodefense*, we have presented additional findings and recommendations in *Defense of Animal Agriculture (2017)*, *Budget Reform for Biodefense: Integrated Budget Needed to Increase Return on Investment (2018)*; and *Holding the Line on Biodefense: State, Local, Tribal, and Territorial Reinforcements Needed (2018)*. We also continue to assess federal implementation of our recommendations. We issued our first assessment, *Biodefense Indicators*, in 2016, one year after we released the *Blueprint for Biodefense*, and found that events were outpacing federal efforts to defend the Nation against biological threats.

Our third recommendation in the *Blueprint for Biodefense* called for the development and implementation of a National Biodefense Strategy. The goal was for the federal government to take existing presidential directives, public laws, and international treaties, partnerships, and instruments that address biodefense, as well as all of the many federal policy, strategy, and guidance documents that address bits and pieces of biodefense, and create one comprehensive Strategy that subsumes them all. Required by Congress in the National Defense Authorization Act of Fiscal Year 2017, signed into law by President Obama, and produced by the Trump Administration in September 2018, the National Biodefense Strategy now exists to guide defense against biological threats to our country.

Substantial participation is required by non-federal partners to help implement this Strategy. State, local, tribal, and territorial governments, and non-governmental stakeholders respond to the immediate impact of biological events. There is no guarantee that federal support will arrive within the first few hours after a biological event occurs. The federal government must greatly strengthen non-federal capabilities and capacities by increasing support to them. Collaboration, coordination, and innovation are all needed – for government policy, public and private sector investments, advancing science and technology, intelligence activities, and public engagement. We also need to foster entrepreneurial thinking and develop radically effective solutions.

We are greatly concerned about intentionally-introduced biological threats. Four years after the release of our initial report, the Nation remains unprepared for bioterrorism and biological warfare with catastrophic consequences. Worse, current efforts to develop needed technology to detect the threat are insufficient and going in the wrong direction.

Biodefense is not a new requirement for our country. At one time, the United States developed both biological weapons and the ability to defend against them. We collected intelligence on our enemies' activities (although admittedly, we missed the continued activities of the Former Soviet Union after we ceased our own offensive biological weapons program). We rightly feared the specters of horrific diseases like smallpox and worked hard to eradicate them with vaccines, antibiotics, and other medicines. But over time, as our public health and health care systems improved and we decided not to engage in biological warfare, we reduced our national emphasis on, and fiscal support for, biodefense.

The biological threat has only increased since the anthrax events of 2001. We suspect North Korea and other countries of continuing or creating biological weapons programs. Al Qaeda, the Islamic State of Iraq and the Levant, and other terrorist organizations have been quite vocal about their active pursuit of biological weapons. We are not alone in expressing our concerns. The United Nations, as well as France, Germany, the United Kingdom, and other European countries; Russia; and other nations have also articulated their suspicions and apprehensions.

Letters containing anthrax spores were received in the Hart Senate Office Building 18 years ago this week, shutting the building down for three months. One of our commissioners, former Senate Majority Leader Tom Daschle, was the target of one of

those letters. More were sent to other locations. Anthrax killed five people, made 17 others sick, reduced business productivity, and forced us to engage in costly decontamination, remediation, and treatment after the fact. Clearly, the Nation was not adequately prepared.

Today, the biological threat has not ebbed. No federal department or agency disagrees with this assessment. The Department of State believes that Russia and North Korea continue activities to develop biological weapons, and is unsure whether China and Iran have eliminated their biological warfare programs. Nation states such as China and Russia hardly bother to hide their efforts to drive high biotechnology, much of which is dual-use and could be easily turned to produce large quantities of biological agents and weapons. China alone will invest about \$12 billion to advance biotechnology innovation from 2015 to 2020. Terrorist organizations continue to place training materials online for conducting biological attacks with anthrax, botulism, and other biological agents. Ebola was never fully eradicated and defies control to this day. And the U.S. Army Medical Research Institute of Infectious Diseases, one of the Nation's most important laboratories for research on biological agents and deadly diseases for which we have no cure is currently shut down because it failed to meet biosafety standards.

The Director of National Intelligence again testified about the biological threat before Congress this year, expressing the Intelligence Community's growing concern about the increasing diversity of, and ability to develop, traditional and novel biological agents; ways in which they can be used in attacks; ability to produce biological weapons; and the risks they pose to economies, militaries, public health, and agriculture of the United States and the world. The National Intelligence Council also made similar statements in its latest Global Trends report, focusing on the risk associated with synthetic biology and genome editing, and how advances in biotechnology are making it easier to develop and use biological weapons of mass destruction.

Given the severity of the threat, the federal government has spent, and continues to spend, millions to develop, improve, and deploy technology in hopes of rapidly detecting biological attacks. Effective environmental surveillance should assist with pathogen identification and provide early warning. Unfortunately, as this Committee is well aware, the equipment designed to detect airborne biological contaminants do not perform well and have not progressed significantly since their initial deployments. The federal government has also failed to efficiently and comprehensively integrate and analyze human, animal, plant, water, and soil surveillance data.

The United States launched the BioWatch biodetection program in 2003, but its potential remains unrealized. As of 2019, BioWatch uses the same technology (e.g., manual filter collection, laboratory polymerase chain reaction testing) as it did six years ago. The Department of Homeland Security Office of Countering Weapons of Mass Destruction oversees the BioWatch program of nationally distributed detectors that sample the air for a select number of pathogens. Non-federal public health laboratories then analyze the samples. Technological limitations of the system include: (1) reliance on wind blowing in optimal directions; (2) taking up to 36 hours to provide notification of the possible

presence of a pathogen; (3) inactivation of specimens, preventing determinations of whether live organisms were released; and (4) inability to differentiate between normal background and harmful pathogens. Additionally, federal agencies involved in determining what to do with BioWatch-related test results often disagree as to what course of action should be taken and do not always consult non-federal public health and other leaders, even though they often must make many response decisions.

Late last year, the Department of Homeland Security announced a new initiative – Biodetection 21 or BD21 – to replace existing, inadequate BioWatch technology. This effort has already seen its share of problems. The Department is not testing state-of-the-art technology. The Department has not established requirements for new platforms. The Department has not sought comprehensive input from relevant stakeholders. Instead, BD21 is testing old Department of Defense technology for domestic use, rather than evaluating more current and advanced Department of Defense candidates. Some of the technology under evaluation may itself be flawed, lacking sufficient validity and reliability data. State, local, tribal, and territorial partners have been left almost entirely out of the loop. They are unsure if they can support the system, because no vision for it has been communicated to them, other federal partners, and Congress. These characteristics do not provide a good basis for success.

The Bipartisan Commission on Biodefense supports efforts to develop, deploy, and maintain effective biodetection technology. We support efforts to replace poor and nonfunctioning BioWatch technology. We support congressional efforts to ensure that the \$80 million in taxpayer funds spent annually on BioWatch is used wisely going forward.

The Department of Homeland Security must engage in good government by identifying requirements with non-federal governmental representatives, testing candidates with scientific and organized processes, and utilizing standard acquisition procedures in awarding contracts. We continue to recommend that the Department of Defense transfer more advanced, far better performing biodetection technology to the Department of Homeland Security for domestic testing. We also recommend that the Department of Homeland Security reengage its Science and Technology Directorate, as the problem is now, and has always been, one of basic, applied science. It may also be time to reach back to the National laboratories that worked on biodetectors in the late 1990s and which continue to conduct research in this arena for assistance.

Finally, Congress needs to reexamine authorization of, and appropriations for, this program and that of the National Biosurveillance Integration System and Center. The biological threat is increasing, our nation grows increasingly vulnerable to this threat, and the catastrophic consequences are far too great to ignore.

Once again, thank you for this opportunity to address biodefense. We appreciate the Committee's interest in our Commission since its inception. I also thank Hudson Institute, which serves as our fiscal sponsor, and all of the organizations that support our efforts financially and otherwise. We look forward to continuing to work with you to strengthen national biodefense.

Please see our bipartisan report, *A National Blueprint for Biodefense* and our other reports for more details regarding the following 33 recommendations:

1. Institutionalize biodefense in the Office of the Vice President of the United States.
2. Establish a Biodefense Coordination Council at the White House, led by the Vice President.
3. Develop, implement, and update a comprehensive national biodefense strategy.
4. Unify biodefense budgeting.
5. Determine and establish a clear congressional agenda to ensure national biodefense.
6. Improve management of the biological intelligence enterprise.
7. Integrate animal health and One Health approaches into biodefense strategies.
8. Prioritize and align investments in medical countermeasures among all federal stakeholders.
9. Better support and inform decisions based on biological attribution.
10. Establish a national environmental decontamination and remediation capacity.
11. Implement an integrated national biosurveillance capability.
12. Empower non-federal entities to be equal biosurveillance partners.
13. Optimize the National Biosurveillance Integration System.
14. Improve surveillance of, and planning for, animal and zoonotic outbreaks.
15. Provide emergency service providers with the resources they need to keep themselves and their families safe.
16. Redouble efforts to share information with State, local, tribal, and territorial partners.
17. Fund the Public Health Emergency Preparedness cooperative agreement at no less than authorized levels.
18. Establish and utilize a standard process to develop and issue clinical infection control guidance for biological events.
19. Minimize redirection of Hospital Preparedness Program funds.
20. Provide the financial incentives hospitals need to prepare for biological events.
21. Establish a biodefense hospital system.
22. Develop and implement a Medical Countermeasure Response Framework.
23. Allow for forward deployment of Strategic National Stockpile assets.
24. Harden pathogen and advanced biotechnology information from cyber-attacks.
25. Renew U.S. leadership of the Biological and Toxin Weapons Convention.
26. Implement military-civilian collaboration for biodefense.
27. Prioritize innovation over incrementalism in medical countermeasure development.
28. Fully prioritize, fund, and incentivize the medical countermeasure enterprise.
29. Reform Biomedical Advanced Research and Development Authority contracting.
30. Incentivize development of rapid point-of-care diagnostics.
31. Develop a 21st Century-worthy environmental detection system.
32. Review and overhaul the Select Agent Program.
33. Lead the way toward establishing a functional and agile global public health response apparatus.